

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO THE CLAIMS

1. (Twice Amended) An imaging device, comprising:
 - an optical sensor having an output for providing pixel signals generated in response to light projected onto regions of the optical sensor; and
 - an amplifier having a first input coupled for receiving the pixel signals, a first output for providing an imaging signal, and a control input coupled for receiving control data [representing a predetermined region characterization] representative of signal variations from each respective region to amplify the pixel signals to different gains when the pixel signals are generated in different regions of the optical sensor.

4. (Amended) [The] An imaging device [of claim 3, further] comprising:
 - an optical sensor including a plurality of photoactive devices disposed in regions of the optical sensor, said optical sensor having an output for providing pixel signals generated in response to light projected onto regions of the optical sensor, the optical sensor having an address input coupled for receiving pixel addresses for selecting the pixel signals in different orders;
 - an amplifier having a first input coupled for receiving the pixel signals, a first output for providing an imaging signal, and a control input coupled for receiving control data to amplify the pixel signals to different gains when the pixel signals are generated in different regions of the optical sensor; and
 - a memory circuit for storing the control data, the memory circuit having an address input coupled for receiving the pixel addresses and an output coupled to the control input of the amplifier.

5. (Amended) Imaging device of claim [3] 4, wherein the optical sensor includes a multiplexer having a first input coupled to the output of the optical sensor, and a selection input coupled to the address input of the optical sensor for selecting among photoactive devices of the optical sensor to provide the pixel signals.

6. (Amended) The imaging device of claim [1] 4, further comprising an analog to digital converter having an input coupled for receiving the imaging signal and an output for providing imaging data.

7. (Amended) A method of capturing an image, comprising: [the step of]
altering a gain of pixel signals through an amplifier having a control input in response to control data to compensate for a difference in response to light projected on different regions of an optical sensor;
storing the control data in a memory circuit having an address input coupled for receiving the pixel address and an output coupled to the control input of the amplifier; and
retrieving the control data with address data.

Cancel Claim 13.

15. (Twice Amended) An image capturing method, comprising the steps of:

sensing light projected on first and second regions of an optical sensor to produce first and second pixel signals;

setting a gain of an amplifier having a control input with first control data representing a known variation of signal from a first predetermined region [characterization] for amplifying the first pixel signal; and

altering the gain of the amplifier with second control data representing a known variation of signal from a second predetermined region [characterization] for amplifying the second pixel signal to equalize the responses of the first and second regions of the optical sensor to the light.

17. (Amended) An imaging device, comprising:

an optical sensor having an output for providing pixel signals generated in response to light projected onto a plurality of regions of the optical sensor, wherein each of the plurality of regions has a corresponding control data [representing a predetermined region characterization] representative of signal variations from respective ones of said plurality of regions, and

an amplifier having a first input coupled for receiving the pixel signals, a first output for providing an imaging signal, and a control input coupled for receiving the corresponding control data to amplify the pixel signals to different gains according to each of their corresponding [predetermined region characterizations] signal variations.